

# Non-Hazardous Waste Diversion at LLNL



## LLNL turns scrap material from waste streams into reusable resources

**E**ach year U.S. industry produces millions of tons of solid waste. Lawrence Livermore National Laboratory (LLNL) is committed to reducing its portion of this waste stream. In calendar year 2001, LLNL diverted almost 55% of its 11,000-ton routine and non-routine solid waste stream (excluding Hazardous Waste Management [HWM] industrial waste and soil recycling). LLNL has strengthened its Buy-Recycle Program and continues its activities to promote employee awareness. Some of LLNL's solid waste reduction/diversion programs and their results in 2001 are profiled below.

### Waste/recycling electronic database

To economically and efficiently track LLNL waste generation and recycling efforts, the LLNL Pollution Prevention staff designed and maintains an electronic database.

In 2001, DUS sold over 145 tons of surplus material after investigating reassignment opportunities. The DUS reuse programs include pallet, moving-box, tire, and equipment reuse. Over 1,620 tons of materials were diverted from the LLNL solid waste stream by DUS.

### Metals and other recovery/reuse/recycling programs

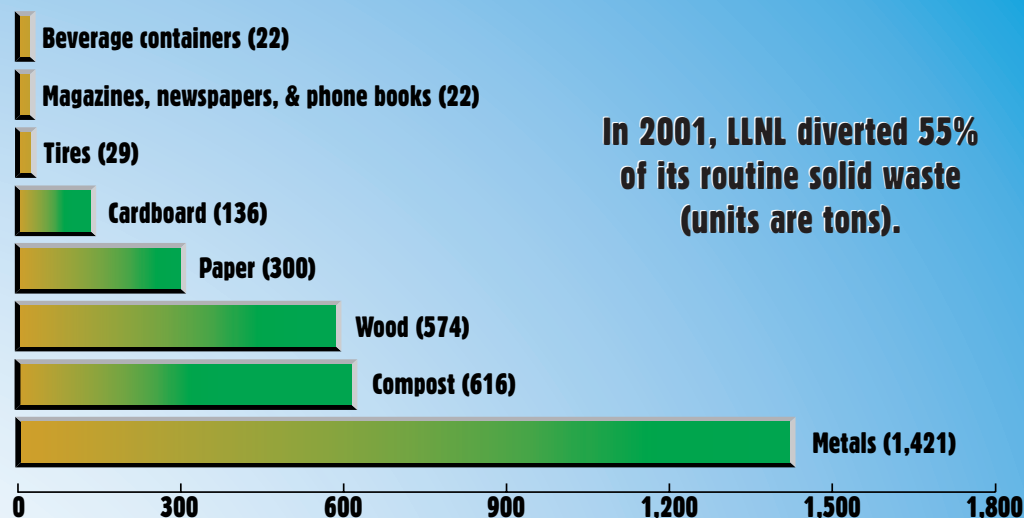
The DUS (Donation, Utilization, and Sales) Group operates several innovative recovery/reuse/recycling "drop-off" programs. These programs recycle metals (1,421 tons), cardboard, magazines, external phone books, and newsprint. Through the DUS Group, surplus equipment is re-assigned throughout LLNL or is donated to other federal agencies or auctioned.

### Wood recycling

Unusable wood, such as broken pallets and demolition scraps, is picked up by a local vendor. In 2001, this program diverted over 574 tons from the LLNL solid waste stream.

### Plant clippings/composting

In 2001, LLNL gardeners composted over 616 tons of plant and tree clippings as well as street sweepings and used the compost on site as a soil amendment. This program not only diverts large amounts of plant material from the LLNL solid waste stream, but it reduces the need to purchase soil amendments.



LLNL holiday trees are collected by LLNL gardeners and then processed for use as soil amendments on site.

(over)

## Office and ledger paper collection and recycling

Since April 1991, LLNL has operated a full-site paper recycling program with over 125 facility collection points. The paper is transported to a vendor facility where it is shredded and recycled.

Classified paper is handled in a separate system. It is sent to a hammer mill on site for processing and subsequent recycling.

To increase its solid waste diversion, LLNL recently expanded its office paper recycling program. The program added newspapers, magazines, and soft-bound reports, among others, to the types of paper that could be recycled. A total of 300 tons of paper was recycled in 2001. Employees can contact the Earth Hotline (E-ARTH or 3-2784) to receive an updated list of acceptable items (see also [Employee awareness](#) below).

## Magazine, newspaper, and external phone books recycling

Undeliverable magazines, external phone books, and uncirculated copies of the employee newspaper (*Newsline*) are recycled by Mail Services and the DUS Group through a local vendor. In 2001, this program diverted over 22 tons from the LLNL solid waste stream. Collection bins are located south of B41I and south of B616.

## Cardboard recycling

The LLNL cardboard recycling program now includes weekly pickups from over 130 facility collection points and diverted over 136 tons from LLNL's solid waste stream in 2001.

## Tire recycling

In 2001, LLNL recycled over 29 tons of used tires.

## Education Program—excess equipment reuse

Items such as used computer equipment, office supplies, etc., can be sent to DUS by employees or programs. The Education Program makes excess equipment available to school districts.

## Beverage-container recycling

In late 1999, LLNL instituted a beverage-container recycling program at all LLNL cafeterias. This program accepts glass, plastic, and aluminum beverage containers as well as steel cans generated from cafeteria food preparation. In 2001, this recycling program diverted 22 tons of material from the LLNL waste stream.

## Printer toner cartridge reconditioning/reuse

LLNL routinely uses, whenever possible, reconditioned toner cartridges in its computer printers. In 2001, almost 2 tons of cartridges were returned for reconditioning/reuse.

## Buy-Recycle Program

Under a Buy-Recycle Program, LLNL purchases items that use recovered/recycled material, such as copy paper, moving boxes, publication paper, and toner cartridges. Buying products with recycled content saves resources and bolsters recycling markets.

## Employee awareness

The LLNL employee awareness program includes new-employee orientation, *Newsline* articles, and briefings (upon request) to employee groups. In addition, the Pollution Prevention staff operate the Earth Hotline (E-ARTH or 3-2784) to respond to employee questions and suggestions, or to provide information regarding source reduction, reuse, and recycling.

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